

IDAHO

FISH & GAME DEPARTMENT

Joseph C. Greenley, Director

Annual Project Closing Report



Evaluation of Salmon and Steelhead Reintroduction
Into the Clearwater River Drainage, Idaho

July 1, 1971 to June 30, 1972

Project No. 28272402

Contract No. 03-3-208-3 Columbia River

Fisheries Development Program January, 1973

TABLE OF CONTENTS

	Page
OBJECTIVES	1
STATEMENT OF ACCOMPLISHMENTS	1
SPRING AND SUMMER CHINOOK	1
FALL CHINOOK	1
COHO SALMON	2
STEELHEAD TROUT	2

LIST OF TABLES

Table No. 1 Spring and summer chinook counts by month at Lewiston Dam, 1950-1972 ...	3
Table No. 2 Age-class breakdown of spring and summer chinook counted past Lewiston Dam, 1965-1972, 1965 - 1972	3
Table No. 3 Spring and summer chinook eyed egg plants made in the Clearwater River drainage, 1961-1972.....	4
Table No. 4 Aerial chinook redd count on the upper Selway River and selected tributaries from 1966-1971	4
Table No. 5 Fall chinook counts by month at Lewiston Dam, 1950-1972 .	S
Table No. 6 Fall chinook eyed egg plants made in the Clearwater River drainage, 1960- 1967	5
Table No. 7 Coho counts by month at Lewiston Dam, 1965-1972	6
Table No. 8 Coho eyed egg plants made in the Clearwater River drainage, 1962-1968	6
Table No. 9 Age-class breakdown of coho counted past Lewiston Dam, 1965-1969	7
Table No. 10 Steelhead eyed egg plants made in the South Fork of the Clearwater River drainage, 1972-1972.....	7

Evaluation of Salmon and Steelhead Reintroductions Into the Clearwater River Drainage, Idaho

OBJECTIVES:

The objective of this project is to evaluate the return of chinook salmon and steelhead trout from eyed egg plants made in the Clearwater River drainage under the Columbia River Fishery Development Program by counting upstream migrating anadromous fish over the Washington Water Power Company Dam in the Clearwater River near its mouth. The 1972 migration will be the final total count past Lewiston as the Washington Water Power Dam is being removed in association with the Lower Granite Dam pool area. Future evaluations will be determined through established redd counts and possibly enumeration at the Selway Falls fishway.

STATEMENT OF ACCOMPLISHMENTS:

The history of anadromous fish runs in the Clearwater River drainage and the reintroduction program being carried on under the Columbia River Fishery Development Program is discussed in the previous annual project closing reports. Fish counting procedures, methodology and criteria for age-class determinations are also described in previous reports.

SPRING AND SUMMER CHINOOK:

A total of 3,467 chinook were counted over the Lewiston Dam near the mouth of the Clearwater River in the spring and summer of 1972 (Table 1). Based on past records, the assumption was made that the majority of fish returning in 1972 was a result of the reintroduction program. Age-class breakdowns for chinook runs counted over the dam during the years 1965 through 1972 are shown in Table 2. The returning three year old fish in 1972 are from 1969 eyed egg plants in Indian Creek, Running Creek and Fenn hatching channels. The returning four year olds are from the 1968 eyed egg plants at Indian Creek, Running Creek and Ditch Creek hatching channels. Natural reproduction from the 990 upstream migrating adults in 1968 would also be returning in 1972.

The return of 3,467 fish is 58 percent greater than the 2,187 that returned in 1971. This return resulted primarily from a plant of 3,680,890 eyed eggs in 1968 (Table 3). In 1972, 10 percent were jacks compared with 17 percent in 1971. A prespawning mortality was documented in the lower Selway River. The majority of those mortalities were not contributed to nitrogen disease.

Aerial surveys in the upper Selway River drainage accounted for 219 redds in 1972. Of this number, 11 were observed in Running Creek drainage (Table 4). Spawning fish in this drainage are a result of the eyed egg plants made in Running Creek hatching channel.

FALL CHINOOK:

A total of nine fall chinook were counted over Lewiston Dam in 1972 (Table 5). Due to insignificant returns of fall run chinook, the reintroduction was terminated in 1968. Eyed egg plants are listed in Table 6.

COHO SALMON:

The count of coho over Lewiston Dam totaled 10 in 1972. Numbers of coho counted by month, 1965 through 1972, are shown in Table 7. Coho eyed egg plants are summarized in Table 8. Age group classifications of coho counted over the dam through 1969 are shown in Table 9.

Due to insignificant return of adults, the reintroduction of coho was terminated in 1969.

STEELHEAD TROUT:


Beginning in 1962, eyed steelhead eggs have been planted in controlled flow hatching channels in the upper South Fork of the Clearwater River drainage. No eyed egg plants were made in 1972 because steelhead eggs were not available. Fish passage was restored to the upper South Fork, Clearwater River drainage in 1963 after access to the drainage had been blocked for 14 years. Eyed egg plants are summarized in Table 10.

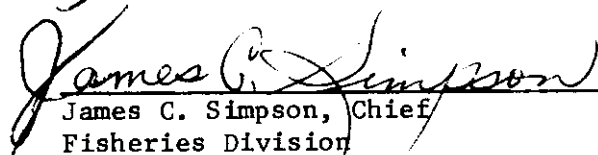
Attempts to locate significant numbers of spawning steelhead on redds in tributaries of the South Fork of the Clearwater River have been unsuccessful. This is due mainly to the turbid spring runoff. Many adult steelhead have been observed by local residents of the area and frequent reports of accidental catches have been noted in 1972.

Prepared by:

Steven A. Doss
Acting Regional Fishery Biologist

Approved by:


Joseph C. Greenley, Director


James C. Simpson, Chief
Fisheries Division


Jerry Mallet
Anadromous Fishery Supervisor

Table 1. Spring and summer chinook counts by month at Lewiston Dam, 1950-1972.

Year	April	May	June	July	August	Total
1950	---	--	1	6	2	9
1951	---	--	15	12	8	35
1952	---	--	7	7	-	14
1953	---	5	23	35	3	66
1954	---	--	2	15	1	18
1955	---	--	4	6	3	13
1956	---	2	7	4	1	14
1957	---	11	42	98	-	151
1958	---	--	11	11	1	23
1959	---	--	5	3	2	10
1960	---	14	15	14	-	43
1961	2	24	82	28	-	136
1962	---	1	6	5	1	13
1963	---	--	5	-	-	5
1964	---	--	33	31	2	66
1965	---	112	124	82	-	318
1966	3	75	148	129	-	355
1967	4	39	131	252	2	428
1968	---	186	261	528	15	990
1969	1	697	1724	103	4	2529
1970	87	427	562	620	4	1700
1971	---	107	801	1277	2	2187
1972	1	172	2060	1199	35	3467

Table 2. Age-class breakdown of spring and summer chinook counted past Lewiston Dam, 1965- 1972.

Year	Age-Class: 3		Age-Class: 4		Age-Class: 5		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1965	66	21	240	75	12	4	318	100
1966	87	25	156	44	112	31	355	100
1967	94	22	200	47	134	31	428	100
1968	335	34	368	37	287	29	990	100
1969	250	10	2199	87	80	3	2529	100
1970	268	16	1118	66	314	18	1700	100
1971	371	17	1497	73	219	10	2187	100
1972	344	10	1859	54	1264	36	3467	100

Table 3. Spring and summer chinook eyed egg plants made in the Clearwater River drainage, 1961-1972.

Year	Number	Year	Number
1961	1,455,000	1967	2,014,460
1962	2,070,000	1968	3,680,890
1963	1,860,000	1969	1,704,826
1964	2,211,000	1970	7,578,917
1965	635,000	1971	2,423,080
1966	2,029,000	1972	5,774,902

Table 4. Aerial chinook redd count on the upper Selway River and selected tributaries from 1966-1972.

Stream	Section	Redds							Live Fish						
		1966	67	68	69	70	71	72	1966	67	68	69	70	71	72
Selway River	Bear Creek - Whitecap Creek	0	0	4	28	18	14	37	0	0	4	21	9	11	13
Selway River	Whitecap Creek - Magruder Cross.	34	14	10	26	33	34	98	0	19	6	14	14	15	80
Selway River	Magruder Cross. - Thompson Flat	2	8	2	5	14	7	40	0	5	1	0	1	4	17
Bear Creek	3 Miles upstream from mouth of Cub Creek	8	7	7	6	19	14	25	2	1	2	2	0	5	5
Running Creek	Mouth - 3 Miles upstream	-	-	4	21	10	8	11	-	-	5	17	4	21	12
Eagle Creek (Running Cr. tributary)	Mouth - 1/2 Mile upstream	-	-	1	4	-	-	-	-	-	1	3	-	-	-
Whitecap Cr.	Mouth - 12 Miles upstream	-	-	-	-	4	-	8	-	-	-	-	-	-	1
ose Cr.	Mouth - Elbow's Bend	-	-	-	-	-	-	13	-	-	-	-	-	-	2
Totals		44	29	28	88	98	77	232	2	25	19	57	28	56	130

Table S. Fall chinook counts by month at Lewiston Dam, 1950-1972.

Year	September	October	November	December	Total
1950	-	-	-	-	-
1951	-	-	-	-	-
1952	-	1	-	-	1
1953	0	1	0	0	1
1954	0	1	0	0	1
1955	1	0	0	0	1
1956	-	-	-	-	-
1957	1	0	0	0	1
1958	2	1	-	-	3
1959	3	-	-	-	3
1960	-	-	-	-	-
1961	1	2	0	0	3
1962	3	1	-	-	4
1963	4	1	-	-	5
1964	13	4	-	-	17
1965	14	18	6	-	38
1966	71	33	16	2	122
1967	16	23	3	-	42
1968	17	3	-	-	20
1969	73	16	1	-	90
1970	93	16	-	-	109
1971	55	11	-	-	66
1972	6	3	-	-	9

Table 6. Fall chinook eyed egg plants made in the Clearwater River drainage, 1960-1967.

Year	Number	Year	Number
1960	535,000	1964	1,000,000
1961	750,000	1965	None
1962	400,000	1966	1,500,000
1963	1,000,000	1967	1,578,000

Table 7. Coho counts by month at Lewiston Dam, 1965-1972.

Year	February	March	September	October	November	December	Total
1965	0	0	0	10	11	0	21
1966	1	1	6	98	8	1	115
1967	0	0	2	40	1	0	43
1968	0	0	197	123	5	0	325
1969	0	0	7	16	8	0	31
1970	0	0	22	13	5	0	40
1971	0	0	31	30	0	0	61
1972	0	0	4	6	0	0	9

Table 8. Coho eyed egg plants made in the Clearwater River drainage, 1962-1968

Brood Year	Number	Brood Year	Number
1962	100,000	1966	3,000,000
1963	500,000	1967	3,066,000
1964	1,000,000	1968	2,000,000
1965	1,180,000		

Table 9. Age-class breakdown of coho counted past Lewiston Dam, 1965-1969.

Year	Age-Class: <u>2</u>		Age-Class: <u>3</u>		Total	
	Number	Percent	Number	Percent	Number	Percent
1965	10	48	11	52	21	100
1966	7	6	108	94	115	100
1967	4	9	39	91	43	100
1968	98	33	203	67	301	100
1969	15	48	16	52	31	100

Table 10. Steelhead eyed egg plants made in the South Fork of the Clearwater River drainage, 1962-1972.

Brood Year	Number	Brood Year	Number
1962	102,500	1968	963,340
1963	484,000	1969	700,000
1964	390,897	1970	2,007,500
1965	249,682	1971	256,000
1966	480,598	1972	-0-
1967	848,455		